Language change, the DP cycle and *such*

Workshop on Neurolinguistics, Morphology & Syntax

on the occasion of the PhD defence of Anne Mette Nyvad

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1. Introduction

1.1. Language change

- Language change is the result of the failure to transmit linguistic features from one generation to the next. Why should there be a failure?
- How do we explain Sapir’s notion of drift ([1921] 1963: 155)? “The linguistic drift has direction. . . The drift of a language is constituted by the unconscious selection on the part of its speakers of those individual variations that are cumulative in some special direction”. But how can a child acquiring language ‘know’ the direction of change?
- Why do we see similar linguistic changes in many different languages that have different social histories (e.g. loss of Indo-European case morphology on nouns?)
- Is there such a thing as endogenous change (change from within the system); can there be language change without an apparent external trigger such as contact with other languages?
- One of the central questions with respect to languages is whether they are naturally stable or unstable. (see Kroch 2003:700)
- Grammaticalization is an observed phenomenon that needs an explanation
1.2 Theoretical approaches to language change

- 19th century historical linguistics: languages are word inventories, ‘out there’ which can change in systematic ways
- 20th century typology: languages move from one ‘pure’ type to another ‘pure’ type
- Lightfoot (1991; 2006): cue based grammar; (no endogenous change). The child scans the data for specific cues which trigger a grammar. A child changes a parameter because the child receives fewer cues. (But we are left with explaining why the distribution of the cues should change.)
- Clark & Roberts (1993): input matching hypothesis (no endogenous change). The child must find a grammar that matches the sentences they are exposed to.

2. Cycles

The cycles approach investigates changes that result from internal factors. Economy principles in either UG or general cognitive principles encourage a more economical derivation. Van Gelderen (2011: 13.15) outlines two economy principles proposed in van Gelderen (2004):

1. **Head Preference Principle**
   Be a head, rather than a phrase

2. **Late Merge Principle**
   Merge as late as possible

E.g. modal verbs become future markers:

(3)

```
CP
  Spec
  C'
  C^2
  IP
  Spec
  I'
  I^0
  will
  VP
```

In this framework, grammaticalization is feature change and loss:

- Lexical items have three types of features:
- Semantic, interpretable (play a role in semantic interpretation) and uninterpretable (play no role in semantic interpretation)

\[
\text{semantic features} > \text{interpretable} > \text{uninterpretable} > \text{reinforcement/renewal}
\]
Syntactic change is slow: tracking a cycle over hundreds of years is challenging and may involve seeing partial cycles in different languages or language families.

2.1 DP cycle: demonstrative to definite article

Demonstratives > articles > case markers > renewal with a locative adverb

In Old English there are no definite articles

The masculine singular demonstrative *se* becomes the present-day article *the*

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form change: *se* > *þe* > *the*

feature loss: crucial is the loss of locative features.

2.2 Dating the change in English.

Which changes first, form or function? Wood 2003:69 finds two early examples but argues they are not clear examples of a definite article:

(5) 
\[ \text{dā cwom seó tid þe uplican dome stihtigende} \]  
then came that.NOM.FEM time that.NOM.MASC upper judgment ruling  
(BEDE, 3.262.17) (850-950)

(6) 
\[ \text{ða soðlice geendode þe gebeorscipe} \]  
then truly ended that.NOM.MASC feast  
(APOLLO 28.17.15)(950-1050)

2.3 Head or specifier?

Wood (2007a; 2007b) argues that the demonstrative is already a head before the form changes. The data used to argue this come from changes made between an early version and a later version of the same text, Pope Gregory’s dialogues (Yerkes 1982), with the order possessive followed by demonstrative

(7) 
\[ \text{a. þæt seó eorðe gehæfde} \]  
his that.ACC.MASC received body 
(his that.ACC.MASC received lichaman (GD: C 155.9)

\[ \text{b. þa geheold seó eorðe} \]  
his underfanzenan lichaman (GD:H 155.9)

(8) 
\[ \text{a. min þæt ungesæelige mod (GD:C 4.9)} \]  
my-NOM that.NOM.N unhappy spirit

\[ \text{b. min ungesæelige mod (GD:H 4.9)} \]  
my-NOM unhappy spirit

c. infelix. . . . animus meus (Latin)
In early English demonstratives and possessives co-occur. The demonstrative is added because the possessive is not definite. In later English they compete for the same position.

Data with the reverse order is also found, but argued to be irrelevant:

(9) a. in this ACC-N user circlice stær
    in this ecclesiastical history-N (Bede 282.23)

Although Denison (1998: 114-115) claims that such word order is not possible in present-day English, it is, in fact, quite unremarkable as an apposition as argued (Wood 2007b):

(10) As brisk as bees . . . did the four Pickwickians assemble on the morning of the twenty-second day of December, in the year of grace in which these, their faithfully recorded adventures, were undertaken and established. (1836-7 Dickens, Pickwick Papers) (Denison 1998:115)

(11) Hill's confidence has grown throughout this his first full season as a front-line racer in Formula One since he replaced Nigel Mansell in the Williams team. (BNC:[Liverpool Daily Post and Echo])

2.4. Further reduction and renewal

(12) T’master nobbut just buried, and Sabbath no o’ered, und t’sound o’tgospel still i’ yer lugs, and ye dare be laiking!
    The master only just buried and Sunday not over and the sound of the gospel still in your ears and you dare be playing. (Wuthering Heights, quoted in van Gelderen, 2011:215)

(13) cos a girl used to be at the front to strip all this here lace of these here pins. Then theses-- they used a pole this er and you used to have to behind stripping all these off lace off the pins while these here ladies was folding this er net up. On these here ladders. (BNC: oral history)

(14) in fact that is not a condition precedent to the exercise of his part and disallow interest in this here item, er any prejudice there maybe is merely one factor to be taken into account in other matters. . (BNC: courtroom)

3 DP cycle: so, such, thus, this and a
What grammaticalization occurs within the DP other than the demonstrative becoming an article? Are these grammaticalisations cyclical? (Head preference? Reduction/renewal?) How do they interact with the demonstrative cycle?

Structure of the DP
I will take as a starting point the order of DP elements argued for in Epstein (2001:18). I assume each projection has a head and a specifier, while not, as yet, committing each lexical item to a position.
3.1 such in present-day English and Old English

The position of such is not shown in the above tree. In present-day English, such precedes the indefinite article and follows the numeral (examples from Epstein (2001: 14).

(16)  
a. I bought such a book yesterday  
b. *I bought such one book yesterday  
c. I bought one such book yesterday

Attributive adjectives follow CountP and precede NP:

(17) I bought several such thick blue paperback books yesterday.

The word such in common Germanic is a grammaticalised form of ‘so’ formed from swa, ‘so’ + *lîko, ‘body’, ‘form’

(18) En. so such  
Ge. so solch  
Du zo zulk  
Da. så sådan (slig)  
Sw. så sådan (slik)

Such is derived from a reinforced so (swa lice). It is an adjective in Old English declined as a strong adjective, usually preceding the noun (Mitchell 1985:200).

(19) Hwam ne mæg earmian swylceære tide?

who NEG may not lament such-GEN (a) time (1087 Anglo-Saxon Chron. (Laud) ann.)

(20) Þær hire brohte Godes engel swylcne gerelan swylcne næfre nænig fulwa . . mihte don . . .

There (to) her brought God’s angel such-ACC (a) garment, such-ACC (a one) no fuller . . might make (Old English Martyrology: Helsinki corpus).
To swulche forward we beoð hidere isende

*(Laȝamon Brut (Calig.) approx 1200)*

3.2 *Such*: meaning: demonstrative/kind and degree

The meaning in the above Old English examples is **demonstrative/kind**: a particular kind or type of *time, garment* or *part* is meant.

In present-day English *such* can also have a **degree** meaning (see also Wood 2002):

(22) I think that people who can afford it spend such a lot of money on the raffle. (BNC: meeting)

It is easiest to tell whether the reading is degree or kind when there is a correlative clause. The demonstrative readings surface when there is a following restrictive clause, or a quantifier such as *no, any*

Examples from (Wood 2002:110):

(23) Had Appleby felt himself to be in charge he could no doubt have assembled in ten minutes such preliminary facts [as there were].

(24) on the basis of any such a proposal or application form.

(25) For the time being at least, no such a change in Congressional attitudes would occur.

The degree readings surface when there is a clause of comparison:

(26) No other manufacturer makes such a wide variety of shirts [as the CWS].

When the following clause is dropped the readings are more difficult to judge.

3.3 Diachronic development: kind>degree

We might expect the degree reading of *such* to develop later than the kind reading, given that the usual diachronic path is from kind to degree according to Bolinger (1972:61). Morphemes from the determiner system shift from ‘pointing’ to ‘pointing up’.

We see demonstrative> degree e.g. with *this* and *that*

(27) I do think it's important to say that things would not be in quite this big a mess had we had a different president

(COCA)

(28) I haven't felt this well in years


A now obsolete degree reading with *thus*, which earlier had a degree reading:

(29) Woldest þu þus sone faren ægin to Rome

Want you so soon to travel again to Rome?

*(Laȝamon Brut (Calig.) approx 1200)*

Degree reading are possible with nouns or modified nouns. Unmodified nouns must be gradeable:

(30) I'm such a fool!

(31) *It is such machinery

(32) It is such dangerous machinery
The questions of whether kind readings came earlier than degree is an empirical one, the answer to which is not yet clear. The OED gives two pre 16th century examples (from the years 893 & 1297) which I don’t find convincing.

If the OED is correct, the earliest examples of the degree reading of such are found in constructions without the adjective as exemplified in (33) and (34). The earliest examples with an adjective are from the 16th century:

(33) Ye shall not marry. Ye are such a calfe, such an asse, such a blocke
     (a1556 N. Udall Ralph Roister Doister)

(34) If it were not for one trifling respect, I could come to such honour
     (a1616 Shakespeare Merry Wives of Windsor)

(35) Suche a madde bedleme For to rewle this reame, It is a wonders case
     (a1529 J. Skelton Why come ye nat to Courte)

Another surprising piece of data is the obsolete use of such as a complementiser (introducing a subordinate clause) although it appears already obsolete by 1300. In the examples below from Layamon (two versions of the same text) the later version shows substitution with as, so we clearly are looking at a complementiser:

(36) Wildu dior ðær woldon to irnan & stondan swilce hi tamu wæren
     (c888 Ælfred tr. Boethius De Consol. Philos.)
     Wild animals there wanted to run and stand as if they were tame.

(37) a. He aras up and adun sat swulc he weore swiðe seoc
     (Laȝamon Brut (Calig.) approx 1200)

     b. He aras up and adun sat ase he weore swiðe seoc
     (Laȝamon Brut (Otho.) approx 1300)

     He rose up and down sat as if he were very sick

3.4 Finding the cycle?

Head or specifier?

Cliticisation with one, now obsolete:

(38) þei schullen presenten hym to þe nexte custode of þat place where euere þei fynden sychon
     They shall present him to the next custodian of that place wherever they find such (a) one.
     (c1380 Wyclif Wks.).

(39) Dilligent and honest And suchon that..wilbe gladde to serue your grace in any thin g.

(40) The hearie scalpe of soch one as goeth on still in his wyckednes.
     (1539 Bible (Great))

(41) The hearie scalpe of such a one as goeth on still in his wyckednes.
     (1611 Bible (Great))

(42) The death of such a one is an exceeding loss.
     (1654 O. Sedgwick Elisha)
Reinforcement:

Reinforcement with \textit{like}:

\begin{enumerate}
\item Intrelles of bestes or such filthy thyng like \textit{Entrailes of beasts or such filthy things like} \hfill (1474 Cov. Leet Bk. 389)
\item Suche-like dyuersite may a man fynde in dyurers stomakis. \hfill (1422 J. Yonge tr. Secreta Secret. 239)
\end{enumerate}

Surprisingly, in present day English there are no spoken examples of \textit{suchlike} in COCA or BNC, only written ones (also in COHA).

Most modern written examples are of co-ordination, but not all:

\begin{enumerate}
\item but it could buy them time to use curative spells, potions, and \textit{suchlike} (BNC)
\item The loss of \textit{suchlike} beauty is an undoubted evil (COHA, non-fiction 1882):
\end{enumerate}

\textbf{3.5 \textit{Such} on its way out?}

According to Zifonun et al (1997: 1936), \textit{solch} is changing from a determiner to an adjective.

They give the following judgements:

\begin{enumerate}
\item Solcher Wein schmeckt mir.
\item ? Solche Theorie taugt nichts.
\item ?? Solcher Mann kam gestern.
\end{enumerate}


[Use of \textit{solch}- with abstract substance expressions and \textit{solch}- with individual reference in the singular are questionable and sound archaic].

The demonstrative meaning in German is archaic and being replaced by \textit{so’n}

German \textit{so ein} is in colloquial speech becoming \textit{so’n}, analysed by Hole & Klumpp (2000) as a ‘type referential’ article.

In German and Dutch the order [\textbf{so} ART (ADJ) NOUN] is grammatical. This construction is equivalent to those with \textit{such} in English (\textit{such a big house}) (Wood & Vikner 2009).

\begin{enumerate}
\item En. a. *so a (big) house
Ge. b. so ein (großes) Haus
Du. c. zo’n groot huis
Da. d. *så et (stort) hus
Sw. e. *så ett (stort) hus
\item a. \textit{so’n Pullover} (sing.) \textquoteright a sweater like that/of that kind’
b. \textit{so’ne Pullover} (pl.) \textquoteright sweaters like that/of that kind’
\end{enumerate}
Constructions of this type were found with an adjective in English in the 16th and 17th century but are now obsolete.

(52) The feeble definition of so an approved philosopher. (1569 J. Sanford)

(53) Vpon so an apparant diminution of the peoples libertie. (1614 J. Selden Titles of Honor 1489)

(54) So an unnaturall sin was Atheisme. (1656 T. Fuller Notes Jonah in Coll. Serm. 259)

Present-day English would use such or have a pre-article adjective:

(55) a. such an unnatural sin
    b. so unnatural a sin

4. Conclusion/discussion:

- The following set of words are etymologically and semantically related: so, such, as, thus, this
  eal swa > also
  eal swa > as (Ge: als)
  this/that > thus (English) OHG: sus Middle Dutch: zus
  swa lik > such/solch

Danish also has a degree word ligså which is the compound reversed:

(56) a. Han er ligeså stor en fodboldfan som min søn
    b. Han er en ligeså stor fodboldfan som min søn
    He is just as big a football fan as my son. (Sten Vikner p.c.)

- Many degree words can function at some time in their history at both the sentence level and in nominals (and in exclamatives):
  
  such: demonstrative/degree/complementiser
  
  this/that: demonstrative determiner/degree adverb/specificity marker/ complementiser
  
  thus: degree/ sentential adverb
  
  so: degree/ determiner/ sentential adverb
  
  how: complementiser/ degree adverb

Challenges:
What are the features?

What happens when one word (bundle of features) is replaced by another, with no repercussions in the syntax: English they; Danish sådan
Sources
British National Corpus (BNC) http://corpus.byu.edu/bnc
Corpus of Contemporary American English (COCA) http://corpus.byu.edu/coca
Corpus of Historical American English (COHA) http://corpus.byu.edu/coha
Oxford English Dictionary (OED) on-line www.oed.com

References
According to one definition in the Oxford English Dictionary, a cycle is a "period in which a certain round of events or phenomena is completed." Others, such as Traugott and Dasher (2002: 87), claim that the number of counterexamples to unidirectionality is small and not systematic. The Linguistic Cycle. In this book, I argue that cycles are the result of reanalysis by the language learner and I attempt to provide an explanation of this phenomenon within generative grammar, that is, within the Minimalist framework. Types of Language Change. Language is always changing. We've seen that language changes across space and across social group. Language also varies across time. Generation by generation, pronunciations evolve, new words are borrowed or invented, the meaning of old words drifts, and morphology develops or decays. The rate of change varies, but whether the changes are faster or slower, they build up until the "mother tongue" becomes arbitrarily distant and different. After a thousand years, the original and new languages will not be mutually intelligible. After ten thousand years, Changes in language can often be due to trends or the popularity of new lexis rather than new words being invented. E.g. "cloud storage" was coined in the 1960s but came to real prominence in 2006 (Mohamed 2009). Youngsters, traditionally earlier adopters of technology, are developing a new language and style of writing through different forms of communication such as WhatsApp. As outdated phrases such as "lady doctor" and "male nurse" are no longer in popular use, other obsolete terms that date from an era where professions were dominated by one sex are also on the decline. An actor is an actor regardless of their gender. Words enter or become popular in a language all the time as these words demonstrate (Oxford Dictionaries 2018) Third, conscious language changes are usually in the direction of overt prestige, such as standard British English. These often originate from the middle or upper class and are usually imitated by women. Subconscious changes are usually away from overt prestige and often begin by working-class men, whose speech habits are often associated with toughness and masculinity so is most common in men covert prestige. The central point made by the author in this essay is that language is changing all the time and despite many people objecting to it and thinking it is for the worst it can not be stopped and is not really a good or bad thing but just a inevitable event that has to take place due to the fact society and people. As such, language allows people to divide the external world in a myriad of ways and to create artificial worlds, such that it is nearly impossible to imagine a social system comprising human beings that is not ordered by language [16]. While many species on the planet communicate, the cognitive possibilities that spoken and written language affords are thought to be distinctively human. There is a three-cycle process of language change [26]. Main determinants are learning (ontogeny), learning produces cultural evolution, (glossogeny) take place with much slower biological evolution and development of phenotype (phylogeny).